

ALLOY SUBSTANTIALLY FREE OF DENDRITES AND METHOD OF  
FORMING THE SAME

ABSTRACT OF THE DISCLOSURE

Described herein are alloys substantially free of dendrites. A method includes  
5 forming an alloy substantially free of dendrites. A superheated alloy is cooled to form a  
nucleated alloy. The temperature of the nucleated alloy is controlled to prevent the  
nuclei from melting. The nucleated alloy is mixed to distribute the nuclei throughout  
the alloy. The nucleated alloy is cooled with nuclei distributed throughout.